

**STATE FOREST LAND
ENVIRONMENTAL CHECKLIST**

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at <http://www.dnr.wa.gov> under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

Timber Sale Name: **BULLFROG**

Agreement #: **30-082470**

2. Name of applicant: **Washington State Department of Natural Resources (DNR)**

3. Address and phone number of applicant and contact person: **Charlie McKinney, 713 Bowers Road, Ellensburg WA 98626
PH 509-925-0960**

4. Date checklist prepared: **08/13/2009**

5. Agency requesting checklist: **DNR**

6. Proposed timing or schedule (including phasing, if applicable):

a. *Auction Date:* **Winter 2010**

b. *Planned contract end date (but may be extended):* **Fall 2011**

c. *Phasing:* **None**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Timber Sale

a. *Site preparation:* **On Units 2 and 4 ground machine disturbance to create plantable spots on 65 acres. Also on Unit 2 and 4 ground herbicide application on 65 acres**

b. *Regeneration Method:* **On Units 2 and 4 hand plant on 65 acres.**

c. *Vegetation Management:* **None**

d. *Thinning:* **None**

Roads: **None.**

Rock Pits and/or Sale: **None**

Other: **N/A**

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

- ☐ 303 (d) – listed water body in WAU: ☐ temp ☐ sediment ☐ completed TMDL (total maximum daily load):
- ☐ Landscape plan:
- ☐ Watershed analysis:
- ☐ Interdisciplinary team (ID Team) report:
- ☒ Road design plan: **Klickitat District Engineer**
- ☐ Wildlife report:
- ☐ Geotechnical report:
- ☐ Other specialist report(s):
- ☐ Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):
- ☐ Rock pit plan:
- ☒ Other: **Policy for Sustainable Forests: Environmental Impact Statement adopted July 31, 1992 & DNR Habitat Conservation Plan, adopted January 30, 1997 and amended for the Klickitat planning Unit in April 2004.**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. **None known.**

10. List any government approvals or permits that will be needed for your proposal, if known.

☐ HPA ☒ Burning permit ☐ Shoreline permit ☒ Incidental take permit ☒ FPA # 2704512 ☐ Other:

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. *Complete proposal description:*

Units 1 and 2 are 3 ½ miles northwest from Glenwood, WA. Units 3, 4 and 5 are two miles north from Glenwood WA. Units 2 and 4 are a variable retention tree harvest, totaling 65 acres. Units 1, 3 and 5 are multistory thinnings totaling 331 acres. The elevation is 3,000 feet for Units 1 and 2 with a southeast exposure and slopes averaging 10%. Units 3, 4, and 5 have an elevation of 2,200 feet, southern exposure and average slopes of 15%. Post harvest Units 2 and 4 will be reforested, site preparation for planting will include creating planting spots with a cat and chemical herbicide application.

b. *Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives*

Objectives for Units 1, 3, and 5 are to reduce stocking density to sustainable levels, address disease and insect infestation issues.

Objectives for Units 2 and 4 are: in Unit 2 leave 6 legacy trees/acre (tpa) of ponderosa pine, Douglas fir, western larch or Engelmann spruce; in Unit 4 leave 10 legacy tpa of ponderosa pine, Douglas fir, and western larch. Create a sustainable forest by planting seral tree species that are adaptable to an eastside forest environment.

The stand composition in Unit 1: Grand fir/Douglas Maple/Queencupbeadilly is the plant association, tree species: grand fir (29%), ponderosa pine (50%), Douglas fir (20%), and western larch (1%), a 100 year site index for ponderosa pine is 108, stand age 107, 160 tpa, basal area (BA) of 150, average dbh 14.0", 21 mbf/acre, and a relative density (RD) of 45.

Unit 2 Grand Fir/Douglas Maple/Queencup Beadlily is the plant association, grand fir is the primary species (50%), Douglas fir (15%), ponderosa pine (30%), western larch (5%) with traces of Englemann spruce and lodgepole pine, 100 year site index for ponderosa pine 110, 175 tpa, age 75, BA of 200, 28 mbf/acre, an average dbh of 15.0" and a RD of 57.

Unit 3 Grand fir/ninebark is the plant association, tree species: grand fir (40%), ponderosa pine (29%), Douglas fir (30%), and western larch (1%), a 100 year site index for ponderosa pine is 110, stand age 83, 90 tpa, BA 110, average dbh 12.5", 16 mbf/acre, and a RD of 30.

Unit 4 Grand fir/Ninebark is the plant association, species: Douglas fir (33%), grand fir (30%) and ponderosa pine (35%) with a minor component of western larch (2%), 100 year site index for ponderosa pine is 109, 103 tpa, age 96, BA 150, 22 mbf/acre, an average dbh of 15.0" and a RD of 35.

Unit 5 Grand fir/ninebark is the plant association, tree species: ponderosa pine (56%), grand fir (39%), and Douglas fir (5%), 100 year site index for ponderosa pine is 108, stand age 107, 85 tpa, BA 120, average dbh 14.0", 21 mbf/acre, and a RD of 35.

The DNR will continue to address forest health issues by concentrating on stocking levels and species composition. This proposal has 362 acres of Ponderosa Pine/Desired Future Condition (DFC) type habitat and 30 acres of Nesting Roosting and Foraging (NRF) habitat under DNR's Habitat Conservation Plan. The criteria for DFC habitat in Units 1, 3 and 5 will be met post harvest. There are three small areas of NRF habitat marked with blue Special Management Zone tags, that will remain NRF habitat post harvest. Unit 2 is also Ponderosa Pine/DFC but due to grand fir being the primary species and its decline due to forest health issues, this stand will be removed, but 6 legacy tpa only will be retained post harvest. Unit 4 is designated Nesting Roosting and Forging habitat for the Northern Spotted Owl but has fallen out of habitat due to mortality from forest health issues. The prescription for Unit 4 will be to remove all merchantable trees except 10 legacy tpa post harvest. Under the Klickitat Planning Unit's HCP this proposal is part of the Klickitat Glenwood Sub-Landscape.

Logging systems for the entire project: tree felling will be accomplished with mechanical harvesters and hand falling, ground skidding (with either a rubber tired or tracked vehicle) will skid downed trees to a landing. Logging slash will be piled at landings and burned after the operation is completed under smoke management rules.

c. Road activity summary. See also forest practice application (FPA) for maps and more details.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		1082	0.75	0
Reconstruction		1226		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	0			

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. (See timber sale map available at DNR region office, and/or color landscape/WAU map on the DNR website <http://www.dnr.wa.gov> under "SEPA Center.")

a. Legal description: **Parts of Section 19, 27, 28, 29, 30 and 33, Township 7 North, Range 12 East, W.M. Yakima County.**

b. Distance and direction from nearest town (include road names):

Nearest town is Glenwood, Washington, two miles north from the proposal off of the Mt Adams Highway.

c. Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website <http://www.dnr.wa.gov> under "SEPA Center.")

WAU Name	WAU Acres	Proposal Acres
BIRD CREEK	40178.5	326
KLICKITAT/BACON CREEK	21437.5	66

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website <http://www.dnr.wa.gov> under "SEPA Center" for a broader landscape perspective.)

The DNR, in conjunction with the United States Fish & Wildlife Service (USF&WS) and the Washington Department of Fish & Wildlife (WDFW), has developed a long-term strategy to move these forests back to a more historic stocking and species composition as described in the DNR's HCP Amendment #1 to the Klickitat Planning Unit's HCP.

In the Klickitat/BaconCreek WAU#300225 where 66 acres of the proposal is located current data in DNR corporate WAU layer shows there have been approximately 9,557 acres of DNR timber land harvested. The timber harvest activities that have occurred: 8,030 acres of uneven-aged harvest, 1,527 acres of even-aged harvest and 172 acres of salvage harvest occurred on state land within the WAU. Of the unevenaged harvest that have occurred most remain hydrologically moderate to mature forest stands. Currently in this WAU there are 3,715 acres of uneven-aged timber and 608 acres of even-aged timber scheduled for harvest on state land. The timber in this WAU is 90-120 year old trees with some older scattered remnants in the 200+ year old category. Many of these future sales are dealing with reducing stocking levels through thinnings and preserving habitat or DFC (Desired Future Condition).

In the Bird Creek WAU#300224 where 326 acres of the proposal is located there have been approximately 15,145 acres of DNR land with timber harvested. Of these activities in this WAU, approximately 2,941 acres were even aged timber harvested and 11,592 acres of unevenaged timber harvest, and 612 acres of salvage in the WAU. Most unevenaged timber harvest that have occurred remain hydrologically moderate to mature forest stands. Currently in the Bird Creek WAU there are 2,803 acres of planned DNR timber harvest. Of these planned activities 1,647 acres are uneven-aged, 364 are even-aged and 792 are salvage. Many of these future sales are dealing with reducing stocking levels through thinnings and preserving habitat or DFC (Desired Future Condition).

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☒ Flat, ☐ Rolling, ☐ Hilly, ☐ Steep Slopes, ☐ Mountainous, ☐ Other:

- 1) General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone). The Klickitat/Bacon Creek WAU average rainfall/year is 40 inches, elevation range is 1,248 feet to 5,796 feet. Rain on snow in the WAU is categorized as: Highland zone 7%, Peak rain-on-snow zone 52%, Snow-dominated zone 41%. This WAU covers all aspects with southeast being the most prevalent. Land forms are relatively flat in the low land with ponderosa pine forest type dominating this frost pruned snow covered area in winter with a dry and hot climate in the summer. As the WAU climbs in elevation landforms rise moderately with ponderosa pine forest type giving way to the grand fir warm series. Above 2,000 feet landforms are like steps rising then flattening, rising and flattening. At 3,500 feet the grand fir warm series gives way to the grand fir cold due to cooling mountain air, and at 4,200 feet the grand fir series transitions into the subalpine fir series. At 4,500 feet and higher is the snow-dominant zone with timber line at approximately 6,500 feet.

The Bird Creek WAU average rainfall/year is 48 inches/year, elevation range is 1,807 feet to 9,381 feet. Rain on snow in the WAU is categorized as: Highland zone 14%, Peak rain-on-snow zone 40%, Snow-dominated zone 46%. All aspects are present with the southeast being the most dominant in the WAU. Land forms are like stair steps, rising then flattening, rising and flattening up to 4,000 feet and then transitions into steep slopes and mountainous terrain. Forest type in the lower elevation is ponderosa pine

series up to 2,200 feet then gives way to grand fir warm and at approximately 3,500 feet it transitions into grand fir cold. At 4,500 feet in the snow-dominant zone the forest type changes to the subalpine fir series.

- 2) Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).
None

b. What is the steepest slope on the site (approximate percent slope)? 40%

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

State Soil Survey #	Soil Texture or Soil Complex Name	% Slope	Acres	Mass Wasting Potential	Erosion Potential
4683	STONY SANDY LOAM	2-30	202	INSIGNIFICANT	MEDIUM
4843	SANDY LOAM	2-30	110	INSIGNIFICANT	MEDIUM
3634	JUMPE-ROCK OUTCROP-COMPLEX	40-80	57	No Data	No Data
0667	GRAVELLY LOAM	2-25	13	INSIGNIFICANT	MEDIUM
0510	STONY SANDY LOAM	25-50	10	LOW	MEDIUM

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. No

1) Surface indications: None

2) Is there evidence of natural slope failures in the sub-basin(s)?

☒ No ☐ Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:

3) Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?

☒ No ☐ Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:

Associated management activity:

4) Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?

☒ No ☐ Yes, describe similarities between the conditions and activities on these sites:

Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.

- All drainage structures will be maintained in an operable state during and after harvest operations.
- Roads have been designed to divert water to the forest floor to eliminate the risk of erosion. Other roads will be outslowed and have driveable water bars.
- Operational restrictions will exist during wet condition to minimize rutting and soil disturbance on skid trails and logging roads. Seasonal operating restrictions will apply from November 1 through April 30.
- Skid trails will be water barred at the completion of each setting on slopes over 10% or where needed.
- Exiting roads, landings and skid trails will be used wherever practical.

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Approx. acreage new roads: None Approx. acreage new landings: 2 Fill source: None

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Minor erosion may occur on disturbed surfaces during seasonal snowmelt and spring thaw. Erosion potential will be minimized by the measures listed in (h.) below.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? Approximate percent of proposal in permanent road running surface (includes gravel roads):

None

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

(Include protection measures for minimizing compaction or rutting.)

See B1d4 above.

2. Air

- a. What types of emissions to the air would result from the proposal (i.e., dust from truck traffic, rock mining, crushing or hauling, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Minor amounts of exhaust and road dust will be created during the operation. Slash burning smoke would occur if any landing piles were burned, but only for short durations.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

None

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

None

3. Water

a. Surface:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. (See timber sale map available at DNR region office, or forest practice application base maps.)

a) Downstream water bodies:

Klickitat River

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Bird Creek	F	1	100
Dry Creek	F	1	100

c) List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.

No timber harvest activities will be allowed within 100 feet of Type F water.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.

Timber harvest will occur within 200 feet of Type F water in Units 1, 2, 4, and 5. In Units 2 and 4, 6 legacy trees per acre will be left post harvest and other merchantable trees will be removed. In Units 1 and 5 a multi-story thinning will be performed, leaving 50-70 mature tpa left post harvest.

☐ No ☒ Yes (See RMZ/WMZ table above and timber sale map available at DNR region office.)

Description (include culverts): **See above**

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. (Include diversions for fish-passage culvert installation.)

☒ No ☐ Yes, description:

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

☒ No ☐ Yes, describe location:

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

☒ No ☐ Yes, type and volume:

- 7) Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting?

Sub-basin information is not available for eastern Washington.

What is the potential for eroded material to enter surface water?

There is low probability that eroded material will enter surface water. Riparian areas are bounded out of the proposed harvest units. Sufficient outsloping, and cross drains have been installed to transport water off roads. Any sediment flow will be diverted to the forest floor.

- 8) Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?

☒ No ☐ Yes, describe changes and possible causes:

- 9) Could this proposal affect water quality based on the answers to the questions 1-8 above?

☒ No ☐ Yes, explain:

- 10) What are the approximate road miles per square mile in the WAU and sub-basin(s)?

Bacon Creek .9 miles/square mile, and Bird Creek 1.8 miles/square mile.

Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water, to streams, rather than back to the forest floor?

☒ No ☐ Yes, describe:

- 11) Is the proposal within a significant rain-on-snow (ROS) zone? If not, **STOP HERE** and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.

☐ No ☒ Yes, approximate percent of WAU in significant ROS zone.

Approximate percent of sub-basin(s): **No sub-basin information is available for the WAUs.**

- 12) If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?

Sixteen percent of the Bird Creek WAU is within significant rain-on-snow zone. Forty percent of the BirdCreek WAU is within significant rain-on-snow zone.

- 13) Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?

☒ No ☐ Yes, describe observations:

- 14) Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.

Water flows may increase slightly due to decreased transpiration and interception. No contribution to peak flows are expected from this proposal and 3 of the 5 sites (which is 84% of the proposal) will remain fully stocked at completion.

- 15) Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?

☒ No ☐ Yes, possible impacts:

There is a water storage facility for the community of Glenwood Washington 1/3 of a mile down slope of this proposal that will not be affected by the timber harvest activities. The water line for that facility is also located on the site of the proposal and will be protected during timber harvest activities. The water source (McCumber Springs) for the town of Glenwood is located 2/3 mile up slope from this proposal.

- 16) Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.
Refer to: a. 1 c, a. 2, a. 7

b. Ground Water:

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.
No
- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.
None
- 3) Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?
☒ No ☐ Yes, describe:
- a) Note protection measures, if any.
No change in ground water amount or quality is anticipated due to the type of forest stand that will remain after harvest with the protection measures that are incorporated into this proposals plan.

c. Water Runoff (including storm water):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.
Storm water and seasonal snowmelt will be channeled into roadside ditches and then into regularly spaced ditch outs to dissipate onto the forest floor. Other roads will be outsloped to divert water to the forest floor.
- 2) Could waste materials enter ground or surface waters? If so, generally describe.
No
- a) Note protection measures, if any.
None

- d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)
1. All drainage structures will be maintained in an operable state during and after harvest Operations.
 2. Roads have been designed to divert water to the forest floor to eliminate the risk of erosion. Other roads will be out sloped and have driveable water bars.
 3. Operational restrictions will exist during wet condition to minimize rutting and soil disturbance on skid trails and logging roads. Seasonal operating restrictions will apply from Nov 1st through April 30th.
 4. A 100 foot no entry buffer restriction along Type F streams.
 5. Skid trails will be water barred at the completion of each setting on slopes over 10% or where needed.
 6. Exiting roads, landings and skid trails will be used wherever practical.

4. Plants

a. Check or circle types of vegetation found on the site:

- ☒ deciduous tree: ☒ alder, ☒ maple, ☐ aspen, ☐ cottonwood, ☒ western larch, ☐ birch, ☐ other:
- ☒ evergreen tree: ☒ Douglas fir, ☒ grand fir, ☐ Pacific silver fir, ☒ ponderosa pine, ☒ lodgepole pine,
☐ western hemlock, ☐ mountain hemlock, ☒ Englemann spruce, ☐ Sitka spruce,
☐ red cedar, ☐ yellow cedar, ☐ other:
- ☒ shrubs: ☒ huckleberry, ☐ salmonberry, ☐ salal, ☐ other: Queencupbeatily, Ninebark, common snowberry, princecess pine, hazelnut, oceanspray, Oregon grape
- ☒ grass
- ☐ pasture
- ☐ crop or grain
- ☐ wet soil plants: ☐ cattail, ☐ buttercup, ☐ bullrush, ☐ skunk cabbage, ☐ devil's club, ☐ other:
- ☐ water plants: ☐ water lily, ☐ eelgrass, ☐ milfoil, ☐ other:
- ☐ other types of vegetation:
- ☐ plant communities of concern:

- b. What kind and amount of vegetation will be removed or altered? (See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)

- 1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: <http://www.dnr.wa.gov> under "SEPA Center.")

The timber type of surrounding timber stands is the same as those described in this proposal, refer to:
A. 11 b.

- 2) Retention tree plan:

1. This sale has been designed to leave dominant and co-dominant ponderosa pine, Douglas fir and western larch and Englemann spruce (average 14.5" dbh).
2. This proposal is harvesting an average of 80-120 TPA. This proposal will leave approximately 50-70 tpa in Units 1, 3 and 5 and, 6 legacy tpa in Unit 4 and 10 legacy tpa in Unit 2 (average dbh 24 inches).
3. Snags and down woody debris will be retained except where safety concerns exist or operational access is needed.

- c. List threatened or endangered *plant* species known to be on or near the site. **None known.**
- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
None

5. Animal

- a. Circle or check any birds animals or unique habitats which have been observed on or near the site or are known to be on or near the site:

birds: ☒hawk, ☐heron, ☐eagle, ☒songbirds, ☐pigeon, ☐other:
mammals: ☒deer, ☒bear, ☒elk, ☐beaver, ☒other: coyote
fish: ☐bass, ☐salmon, ☒trout, ☐herring, ☐shellfish, ☐other:
unique habitats: ☐talus slopes, ☐caves, ☐cliffs, ☐oak woodlands, ☐balds, ☐mineral springs

- b. List any threatened or endangered species known to be on or near the site (include federal- and state-listed species).
None known.

- c. Is the site part of a migration route? If so, explain.
☒Pacific flyway ☐Other migration route: Explain if any boxes checked:
The site is within the Pacific flyway, however it is not used extensively by migratory waterfowl.

- d. Proposed measures to preserve or enhance wildlife, if any:

- 1) Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.

Species /Habitat:snag dependant species

Protection Measures: large diameter trees and trees with abnormal characteristics (forked top, broken top etc) selected for retention will provide excellent wildlife habitat function in the future timber stand. Existing snags will be retained wherever possible.

Species /Habitat:small mamal

Protection Measures: large down wood will be increased on the forest floor.

6. Energy and Natural Resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
None
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
No
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: **None**

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. **No**
- 1) Describe special emergency services that might be required.
The proposal area is covered under Washington's Forest Patrol Assessment for forest fire protection.
 - 2) Proposed measures to reduce or control environmental health hazards, if any:
Fire extinguishing equipment will be on site during fire season.
- b. Noise
- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
There will be a slight increase in logging traffic.
 - 2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.
Logging equipment and log trucks will create noise during the normal working hours throughout the project's operational period. Approximately 20 loads a day.

- 3) Proposed measures to reduce or control noise impacts, if any:
None

8. **Land and Shoreline Use**

- a. What is the current use of the site and adjacent properties? (*Site includes the complete proposal, e.g. rock pits and access roads.*)
Forest Management
- b. Has the site been used for agriculture? If so, describe.
Yes, for livestock grazing
- c. Describe any structures on the site.
None
- d. Will any structures be demolished? If so, what?
No
- e. What is the current zoning classification of the site?
Forest Resource Zone
- f. What is the current comprehensive plan designation of the site?
Long-term Forest Management
- g. If applicable, what is the current shoreline master program designation of the site?
Does not apply
- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
No
- i. Approximately how many people would reside or work in the completed project?
Does not apply
- j. Approximately how many people would the completed project displace?
Does not apply
- k. Proposed measures to avoid or reduce displacement impacts, if any:
Does not apply
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
Long-term forest management will continue

9. **Housing**

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
Does not apply
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
Does not apply
- c. Proposed measures to reduce or control housing impacts, if any:
Does not apply

10. **Aesthetics**

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?
Does not apply
- b. What views in the immediate vicinity would be altered or obstructed?
- 1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*
☐ No ☒ Yes, viewing location:
- 2) *Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?*
☒ No ☐ Yes, scenic corridor name:
- 3) *How will this proposal affect any views described in 1) or 2) above?*
This proposal will not have any negative impacts on views from beyond the proposal.
- c. Proposed measures to reduce or control aesthetic impacts, if any:
None

11. **Light and Glare**

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
None
- b. Could light or glare from the finished project be a safety hazard or interfere with views?
Does not apply

- c. What existing off-site sources of light or glare may affect your proposal?
- d. Proposed measures to reduce or control light and glare impacts, if any:
Does not apply

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?
Hunting, mountain biking, off road vehicles and camping.
- b. Would the proposed project displace any existing recreational uses? If so, describe:
Recreational uses may experience some disruption during logging operations but would resume once the operation is completed.
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
Warning signs for logging trucks and logging activities will be posted in the area where logging activities occur.

13. Historic and Cultural Preservation

- a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
No
- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.
None
- c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)
Should any cultural resources be identified within the sale boundaries during the timber harvest, work will cease in that area, a professional archeologist will be notified immediately, and a site protection plan will be developed.

14. Transportation

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.
Mt Adams Highway, Trout Lake-Glenwood Highway, State Highway 141, State Highway 14.

1) *Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?*
The route is a main logging and agriculture transportation route for the general vicinity and only a light increase in traffic will exist as a result of this proposal.
- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
No
- c. How many parking spaces would the completed project have? How many would the project eliminate?
Does not apply
- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private). **No**

1) *How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?*
A slight increase in log truck traffic will occur (approximately 20 loads per day)
- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No
- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur. **Approximately 10- 20 loads per day.**
- g. Proposed measures to reduce or control transportation impacts, if any:
None

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.
No
- b. Proposed measures to reduce or control direct impacts on public services, if any.
None

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.
None

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.
None

C. **SIGNATURE**

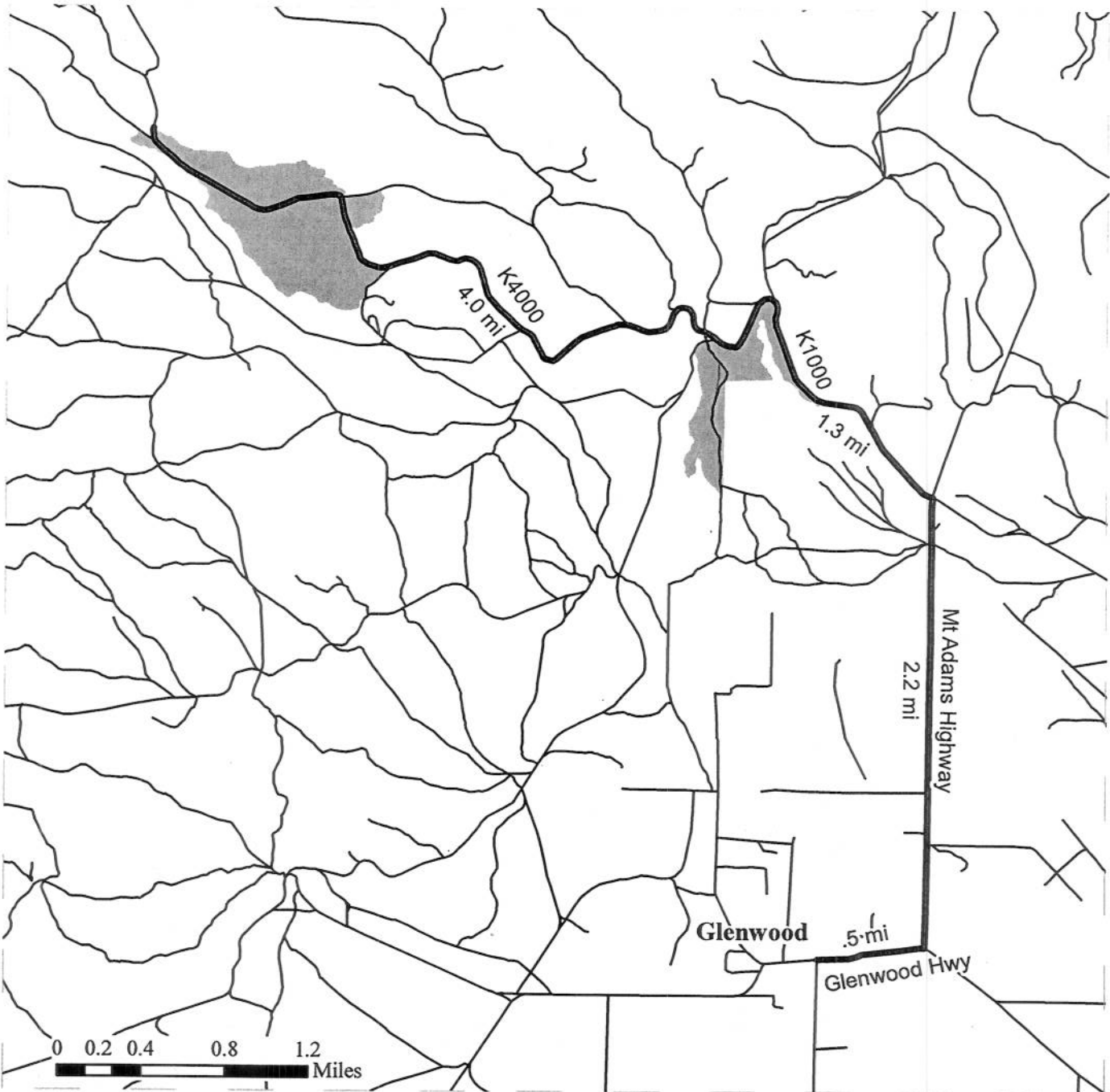
The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by:	<u>Steve Dugger</u> ^{by SD} STEVE DUGGER, District Forester	Date: 11/17/09
Reviewed by:	<u>Peter T. Stocks</u> ^{by SD} PETER T. STOCKS, District Manager	Date: 11/17/09
Reviewed by:	<u>Charlie McKinney</u> CHARLIE MCKINNEY, Proprietary Forester	Date: 11/17/09
Approved by:	<u>George B. Shelton</u> GEORGE B. SHELTON, Assistant Region Manager	Date: 11/18/09

DRIVING MAP

SALE NAME: Bull Frog
AGREEMENT#: 30-0824076
TOWNSHIP(S): Township 7 North, Range 12 East, W.M.
TRUST(S): University (05), CEP & RI (06)

REGION: Southeast
COUNTY(S): Yakima
ELEVATION RGE: 2200-3000'



- Haul_Route
- Existing Roads
- Sale Area

DRIVING DIRECTIONS:
From Glenwood travel East on Glenwood Highway 0.5 miles to Mt. Adams Highway. Turn left onto Mt. Adams Highway continue North for 2.2 miles then turn left onto the K1000. Travel Northwest for 1.3 miles then turn left on to the K4000. All the timber sale units can be accessed from the K4000. The westernmost unit is approximately 4.0 miles from the K1000/K4000 Junction.

